

# Coal Dust Proposed DRAFT Concept Language 12/12/02

## NR 415.077 STORAGE, HANDLING, AND TRANSPORT OF SOLID FOSSIL FUELS

**Purpose:** The purpose of this rule is to reduce the emissions of airborne particulate matter from the storage, handling, processing and transport of solid fossil fuels (e.g., coal, coke); to reduce the potential for the storage, handling, processing and transport of these materials to violate particulate matter and fugitive dust regulations; and to reduce the likelihood of these emissions to cause or exacerbate respiratory problems like asthma, bronchitis, emphysema, hay fever, and allergies.

- **Applicability:** This provisions of this section are applicable to the owner or operator of a facility that stores, handles, processes or transports solid fossil fuels. These limits shall be effective unless more restrictive limits are established by permit, plan approval, or special order applicable to the source.

Note: The intent is that other NR 415 provisions, such as NR 415.03 General Limitations and NR 415.04 Fugitive dust also apply to these facilities.

### Particulate Emissions Limitations:

1. **Visible emissions at property line** – [adapted from current NR 415.075(3)(c) – rock quarries and sand mines]: Emissions from all solid fossil fuel particulate matter sources at the facility shall be controlled such that no visible emissions from these sources, as measured using Method 22 in Appendix A of 40CFR part 60, incorporated by reference in s. NR 484.04, cross the facility's property line.
2. **Visible emissions from emission points at a facility:** The owner or operator of an affected facility must not cause to be discharged to the atmosphere, visible emissions of solid fossil fuel particulate matter from any source (including active and inactive storage piles, baghouses, conveyor transfer points and vehicle activities), in excess of 5 percent of the observation period (i.e., 3 minutes per 1-hour period), as determined by EPA Reference Method 22.
3. **Sources within 100 meters of a residence:** Any person that owns or operates a source that handles, transfers, processes, or stores solid fossil fuels within 100 meters of a residence shall use a completely enclosed building with a roofed and walled structure to store the solid fossil fuel. All handling and transport operations shall be within enclosed buildings or structures, use enclosed conveyors, or use equivalent best management practices, as approved by the Department, so as not to violate the visible emission standards in this section.

### Compliance Requirements:

- 1) **Solid fossil fuel particulate matter control plan** – [adapted from current NR 415.075(6)]: Each owner or operator of a facility that stores, handles, processes or transports solid fossil fuels shall prepare and implement a solid fossil fuel particulate matter control plan to prevent, detect and correct malfunctions, equipment failures or other circumstances which may cause any applicable emission limitation to be violated, or which may cause air pollution. The plan shall be in writing, and updated as needed, and shall include all of the following:
  - a) Identification of the individual responsible for implementing the particulate matter control plan.

- b) The maximum intervals for inspection and routine maintenance of particulate matter control equipment, including a description of the items or conditions that will be checked.
- c) Schedules for watering, treating or periodic cleaning of roads, trafficable areas and storage piles.
- d) If water or chemical suppressants are used, a description of how particulate matter emissions will be controlled during periods when it is unsafe to use water, due to safety concerns or equipment damage that could occur during freezing weather.
- e) A description of how particulate matter emissions from storage piles and handling operations will be controlled during periods of high winds. The plan shall include additional control measures which, include, but are not limited to, increase in the use of water or dust suppressants, use of windbreaks, tarps, and reduction or ceasing of active operations.
- f) A listing of materials, equipment and spare parts that will be maintained in inventory.
- g) A description of the corrective procedures that will be taken in the event of a malfunction or failure which results in the exceedance of the applicable emission limitation. These corrective procedures shall achieve and maintain compliance with the applicable emission limitations as expeditiously as possible but not longer than the time necessary to discontinue operation of the source consistent with safe operating procedures.
- h) Other information as the department may deem pertinent.

Note: Any discharge of stormwater or other water applied to material at a solid fossil fuel storage facility is subject to regulation under a Wisconsin Pollutant Discharge Elimination System permit (ch. 283, Stats.)

Note on potential redundancy: To the extent that any requirements in this section are already required under an existing permit or dust control plan, malfunction prevention and abatement plans or other applicable requirement, the intent is that these requirements do not have to be duplicated, if the existing requirements are at least as stringent as the requirements in this section.

- 2) **Submittal and Review of Plan:** The department may order any owner or operator to submit the plan required by par. (1) to the department for review. The department may request any owner or operator to amend the plan if deemed necessary for malfunction prevention or the reduction of excess emissions.
- 3) **Adherence to the Plan:** No owner or operator may fail to implement the plan required under .par. (1) or as amended under .par. (2).
- 4) **Use and Maintenance of Equipment:** All air pollution control equipment shall be operated and maintained in conformance with good engineering practices to minimize the possibility for the exceedance of any emission limitations
- 5) **Non-enclosed sources** of solid fossil fuel particulate matter, shall be equipped with and use as needed, a water spray, dust suppressant or other chemical treatment system or permitted air pollution equipment sufficient to control particulate matter emissions of solid fossil fuels during loading, unloading, transfer and storage.
  - a) This system shall be available on a daily basis and used whenever visible emissions are observed in such quantity or duration as to have the potential to violate the visible emissions standards in this section.
  - b) Chemical suppressants or treatments that are used shall be approved for use in Wisconsin and shall be used in a manner that does not cause pollution of waters of the state (s. 281.01(10), Stats).
  - c) Application of water or chemical suppressants or treatments shall be used in a manner that follows the Department's Storage Pile Best Management Practices or as otherwise approved by the Department.
- 6) **Enclosed sources** of solid fossil fuel particulate matter shall be equipped with and use as needed, a water spray system or permitted air pollution control equipment sufficient to control particulate matter

emissions at designed vents, and at entrance or exits for material or vehicles so as not to violate the visible emissions limits in this section.

- a) Any entrance or exits for solid fossil fuels or vehicles shall have overlapping flaps, sliding doors or other device approved by the department, which shall remain closed except to allow vehicles to enter and leave or when people are inside.

**7) Observation Schedule for Visible emissions at property line:**

- a) Sources >200,000 tons per year of throughput shall conduct visible emissions readings twice per day, during periods when active operations are occurring, in a direction that is downwind from the facility, using Method 22 in Appendix A of 40CFR part 60, incorporated by reference in s. NR 484.04. The visible emissions readings shall be conducted at an interval of no less than 4 hours between each visible emission reading.
- b) Sources <200,000 tons per year of throughput. Visible emissions readings once per day, during periods when active operations are occurring, in a direction that is downwind from the facility, using Method 22 in Appendix A of 40CFR part 60, incorporated by reference in s. NR 484.04

**8) Visible emissions at emission sources:**

- a) Sources >200,000 tons per year of throughput. Visible emissions readings twice during each shift or operation period at each point and fugitive source, during periods when active operations are occurring at those sources, using Method 22 in Appendix A of 40CFR part 60, incorporated by reference in s. NR 484.04
- b) Sources <200,000 tons per year of throughput. Visible emissions readings once during each shift or operation period at each point and fugitive source, during periods when active operations are occurring at those sources, using Method 22 in Appendix A of 40CFR part 60, incorporated by reference in s. NR 484.04

**9) Baghouse Efficiency:** Where solid fossil fuel particulate matter emissions are controlled using a baghouse, the efficiency of the baghouse shall not be less than 99.9% for particles of ten microns in size.

**10) Responsible person:** One person on each shift shall be designated as responsible for compliance with the facility's dust control plan, the requirements of this section and other permit requirements for sources of solid fossil fuel particulate matter. The person shall have the authority to require actions in support of particulate matter control procedures that shall take precedence over routine coal handling procedures.

**11) Malfunctions:** Any significant malfunction of equipment that materially adversely affects the ability of the facility to control solid fossil fuel particulate matter emissions shall be reported to the department by telephone as soon as practicable, but no later than 24 hours after the malfunction.

**12) Training:** All facility and contract personnel who operate and maintain equipment (including, but not limited to loading, unloading, and vehicles operating on storage piles and haul roads), that can create solid fossil fuel particulate matter emissions, shall be trained on the requirements of the facility dust control plan and the actions that must be taken to keep the facility in compliance with visible emissions and other requirements of this section.

- a) Operating personnel shall be informed by their supervisors that they, as individuals, as well as their employer, are responsible for compliance with the provisions of this section, the facility dust control plan, and other applicable permit requirements as it pertains to the control of solid fossil fuel particulate matter emissions.
- b) Operating personnel shall be informed that failure to stop any coal movement operation at the facility when there is not an emergency and it becomes known that installed dust suppression systems or air pollution control systems are inoperative, or that coal handling equipment that could cause excessive emissions is malfunctioning or is operating significantly below design specifications, is a violation of the dust control plan and potentially a violation of this section and fugitive dust and particulate matter rules, depending on the level of excess emissions released to the air and the duration of the release.

- c) Operating personnel shall be informed that failure to stop any coal movement operation at the facility when there is not an emergency and it becomes known that coal handling equipment that could cause excessive emissions is malfunctioning or is operating significantly below design specifications, is a violation of the dust control plan and potentially a violation of this section and fugitive dust and particulate matter rules, depending on the level of excess emissions released to the air and the duration of the release.
- d) Operating personnel shall be informed that failure of equipment operators to take immediate precautions (e.g., application of water or dust suppressants, slower vehicle speeds, etc.) to preclude fugitive dust emissions from the operation of bulldozers, front-end loaders, automobiles or trucks, is a violation of the dust control plan and potentially a violation of this section and fugitive dust and particulate matter rules, depending on the level of excess emissions released to the air and the duration of the release.
- e) Operating personnel, including contract personnel, shall receive initial training prior to performing any work that has the potential to cause emissions of solid fossil fuel particulate matter to become airborne.
- f) Annual training shall be given to these employees thereafter.

### **Compliance Schedule:**

- 1) **New/Modified Facilities:** The owner or operator of a facility subject to the requirements of this section and constructed or last modified on or after the effective date of this section...[revisor inserts date] shall demonstrate compliance upon startup.
- 2) **Existing Facilities:** The owner or operator of a facility subject to the requirements of this section and constructed or last modified prior to the effective date of this section [revisor inserts date], shall demonstrate compliance no later than 12 months after the effective date of this section ...[revisor inserts date].
  - a) **Certification for Existing Facilities:** Existing facilities shall submit a certification to the department, which describes how the applicable standards will be met and describe the records that will be kept on site to verify continuous compliance.
  - b) The certification shall also contain a signed and dated statement by the responsible official stating that the information is to the best of his or her knowledge and belief, and that all of the requirements of this section have been met.

### **Recordkeeping:**

- 1) Recordkeeping and access to these records shall be in accordance with ss. NR 439.03 to NR 439.05.
- 2) Each owner or operator of a solid fossil fuel storage, handling, or transport facility shall keep the following records:
  - a) A copy of the solid fossil fuel particulate matter control plan for the facility.
  - b) Records of actual operation, including solid fossil fuel throughput, on a daily basis.
  - c) Records of actual production, including solid fossil fuel throughput, on a daily basis.
  - d) Daily record of visible emissions readings at the property line - 2X/day if >200,000 tons; 1X/day if <200,000 tons.
  - e) Daily observations of visible emissions from particulate matter emission sources, including, but not limited to point sources and fugitive sources - 2X/day if >200,000 tons; 1X/day if <200,000 tons.
  - f) Records of dates, times, duration and amounts of water and dust suppressants or other measures used to control emissions of solid fossil fuel particulate matter.

- g) Records of problems at the facility that caused unusual levels of solid fossil fuel particulate matter emissions and a description of the actions taken to resolve the problem.
- h) Records that air pollution control equipment is functioning properly (e.g., pressure drops across a baghouse) and records of maintenance that has been performed.

#### **Possible Definitions to Add to NR 415 (or possibly 400)**

**Enclosed Source** is a source of emissions that is enclosed within a building, structure or device.

**Enclosure (if needed)** is a 3 sided or 4 sided wall or windbreak made of material that has a porosity of 50% or less to the wind, the length of which is, at a minimum, the width of the pile and the height, at a minimum, is the same height as the storage pile and that surrounds the solid fossil fuel storage pile.

**Enclosed Storage** is any completely roofed and walled structure or building surrounding an entire solid fossil fuel storage pile.

**Enclosed Conveyor** is a conveyor which is total enclosed in a tube or encompassed 360 degrees within a solid plane structure, or an equivalent conveying system as approved by the department.

**High Wind Conditions** is when wind speeds exceed 25 miles per hour or when the National Weather Service forecasts winds in the following ranges: 15 to 30 mph; 20 to 30 mph; or 20 to 35 mph, or if the National Weather Service issues a wind advisory or a high wind warning. A wind advisory is issued when sustained winds of 30 mph or greater are expected for one hour or more; or gusts of at least 45 mph for any duration. A high wind warning is issued when sustained winds of 40 mph or greater are expected for one hour or more; or gusts of at least 58 mph for any duration.

**Pile** means any amount of a solid fossil fuel material that attains a height of three feet or more, or a total surface area of 150 square feet or more.